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NON ERICACEOUS BROAD-LEAVED EVERGREENS AT THE MORTON ABORETUM

In continuation of the survey of the broad-leaved evergreens of the Morton Arboretum begun in the June bulletin, our attention at this time is focused on the non Ericaceous types of which the selection is more varied and for the most part less demanding culturally.

Whereas the members of the Heath Family *(Ericaceae)* were almost unanimous in their preference for an acid soil, the non Ericaceous members of the broad-leaved group show a much wider latitude as regards soil pH and a greater tolerance of local climatic and growing conditions.

A brief appraisal of the collection based on performance and ornamental value follows:

Although extremely decorative, the glossy leaved evergreen Barberries are not sufficiently reliable in this area to warrant general usage. The Wintergreen Barberry, *Berberis Julianae,* which has proved to be the hardiest and sturdiest growing of the few we do have, is an erect branched shrub noted for its density of habit and good looking leathery foliage. As with the others, a protected, partly shaded planting site is essential to its success. Three lower growing species, none the less attractive but more inclined to tenderness, are the Threespine Barberry, *B. triacanthophora,* distinguished by long slender spines, the Warty Barberry, *B. verruculosa,* with leathery leaves marked by prominent white undersurfaces and the related Chenault Barberry, *B. Chenaultii,* an improved form of the latter.

Southern Boxwood, the envy of everyone who gardens in the North, is out of the question in this area, but in its oriental counterpart, the Littleleaf Boxwood, *Buxus microphylla,* will be found a substitute well worthy of mention. Slower growing and with lighter evergreen foliage approximately an inch in length, the Littleleaf Boxwood develops into a fairly compact bush up to 4 feet in height. Its several recognized varieties show distinctive variations. The Kingsville Dwarf Boxwood, *B. microphylla compacta,* for example, is a pygmy form, compact in habit and of very slow growth. The Japanese Littleleaf Boxwood, *B. microphylla japonica,* has larger leaves and is taller growing than the type. Hardiest

of all, however, is the Korean Littleleaf Boxwood, **B. microphylla koreana,* whose rounded foliage though normally browning in winter, remains effective the year around. Extremely tolerant of clipping, it is the ideal hedge or accent plant for north or east exposures. Wellers Hardy Boxwood, a selected clone of *Buxus sempervirens,* winters well in lighter soils, but requires perpetual evergreen shade if it is to survive locally.

The versatility of the evergreen Wintercreepers (Euonymus) has been emphasized time and time again, and one must look far afield to find a more congenial group. Serving equally well as ground cover, vine, or in some instances as semi-shrubs, they fulfill a multiple of landscape needs effectively and with finesse. The *Euonymus Fortunei* varieties are the most satisfactory, all with evergreen foliage varying in size, shape and coloring. The Glossy Wintercreeper Euonymus, **E. Fortunei Carrierei,* is one of the most attractive sorts, large leaved and often shrubby. The Purpleleaf Wintercreeper, **E. Fortunei colorata,* is our most efficient ground cover (also a climber), a vigorous form whose rich green summer color changes to purplish in fall. Its variety, **"colorata* **large leaved",** is semi-shrubby with thick foliage to three inches in length. In direct contrast are two diminutive varieties, the Kew Wintercreeper, **"Kewensis",* with tiny evergreen leaves about a quarter of an inch in length and **"minima",* the so called Baby Wintercreeper, with slightly larger foliage. Being fine textured, both are most appropriate for small scale effects. Another good ground cover is the Common Wintercreeper, **"E. Fortunei radicans",* smaller leaved than *"colorata"* and green throughout the year. Its variety *"reticulata",* the Whiterim Wintercreeper, is a lively appearing variation with white margined or partially variegated leaves. Distinct from them all, however, is the round or oval leaved Bigleaf Wintercreeper, **E. Fortunei vegeta,* sprawling shrub or sturdy vine which will cling to either wood or masonry surfaces. In partial shade it is a true broad-leaved evergreen retaining its handsome light green foliage throughout the year. An added attraction in the form of autumn produced orange fruit has given it a second common name, Evergreen Bittersweet. It is unfortunate that our extreme climate limits the use of still another large leaved species, the ornamental Spreading Euonymus, known botanically as *E. kiautshovica* or *"patens"*. Truly shrubby (5-8 ft.), with erect branches and a compact rounded form, it is an extremely useful subject wherever hardy. Being fall blooming, its pinkish red fruits often fail to mature in the north.

Unchallenged among evergreen vines and competing with Myrtle or Periwinkle for top honors as a ground cover, the so called English Ivies must surely be accorded due recognition in any discussion of broad-leaved evergreens. While the type species, *Hedera helix,* is tender in the North, several equally attractive geographical variations of greater hardiness are available as substitutes. These include the light veined Baltic Ivy, **"baltica",* from Northern Europe, the ***Thorndale Sub Zero*** Ivy, a form of similar appearance selected on the basis of its tolerance of local conditions, and two lesser known but promising European selections introduced by Dr. Edgar Anderson of the Missouri Botanical Garden. The better of these, ***MBG Bulgaria,*** the Bulgarian Ivy, is a large leaved South European form whose bold foliage makes a denser covering in partly shaded areas. The other one, ***MBG Roumania,*** the Roumanian Ivy, is a smaller leaved variation more

Yucca or Adams Needle, *Yucca filamentosa,* blossoming in an abandoned gravel pit.

like *"baltica"* in shape and coloring. With encouragement all may be induced to climb on shaded walls.

The infinite variety in which the evergreen hollies occur insures a form to serve almost any purpose, providing of course congenial climatic and soil conditions exist. With the Chicago area definitely out of bounds for most species, however, caution must be exercised in making a selection. The *Ilex crenata* varieties so useful in other parts of the country are definitely uncertain here, even the highly regarded Convexleaf Japanese Holly, *"crenata convexa"*, so distinctive in form and foliage. The Hetz Japanese Holly, *"crenata Hetzii"*, a selection of the Fairview Evergreen Nurseries of Fairview, Pennsylvania has made a better showing. It is larger leaved than the others and extremely glossy. Of similar appearance is the Bigleaf Japanese Holly, *"crenata latifolia"*, still under observation. We are also testing the miniature Kingsville Japanese Holly, *I. crenata* "Kingsville", after having been unsuccessful with *"crenata Stokesii"*, another compact dwarf which showed great promise at first. The tall growing Inkberry, *Ilex glabra,* slender branched, black fruited shrub native throughout the eastern part of the country, is perhaps more permanent than the other species mentioned. Like all hollies it thrives in an acid soil, fortified with oak stump dirt, decomposed oak leaves, pine needles or imported peat. While the Arboretum's best representative of the American (Christmas) Holly, *Ilex opaca,* is the clipped hedge of it in the Hedge Garden, several sparsely branched older trees and a number of smaller specimens of various kinds may be seen throughout the grounds. Our highest recommendation for local use would be the Hedging Holly, **Ilex opaca* **"Bosley Hedging Holly"**, introduced by the Bosley Nursery of Mentor, Ohio. It not only excels in compactness and density but in vigor and adaptability as well. Large leaved **"Old Heavy Berry"**, is another good variety renowned for its very dark foliage and abundant large red fruit. The *"opaca"* types all exhibit greater foliage density and fruit more profusely when planted where they are exposed to sun for half the day. Leaf color will be darker in shade though.

One of the most dependable broad-leaved evergreens for the area is the Oregon Holly-grape, **Mahonia aquifolium,* native shrub of the Pacific Northwest which in addition to handsome semi to fully evergreen foliage of high lustre contributes a noteworthy display of yellow flowers in the spring and abundant clusters of frosty blue grape-like fruit in mid-summer. Three feet is its usual height though it sometimes grows taller. It is quite tolerant of soils and prefers a partially shaded planting site. Exposure to winter sun causes its foliage to burn. From the same general geographical area comes the Creeping Mahonia, *Mahonia repens,* a reduced scale version of the Oregon Holly-grape occuring as a stoloniferous ground cover usually less than a foot in height. Smaller clusters of yellow flowers and smaller blackish fruit further distinguish it from the Oregon Holly-grape. The more tender Leatherleaf Mahonia, *M. beali,* which Robert Fortune introduced from China in 1845, is an exotic appearing shrub whose bold compound leaves are borne in a striking horizontal position. Its flowers are pale yellow and its fruit blue black. Still on the questionable list here.

Where year round shade is available the Canby Pachistima, *"Pachistima Canbyi,* diminutive evergreen shrublet from the Southern Alleghenies, is

an excellent plant for low edgings or ground cover use. Not over a foot tall, it forms neat bushy masses of thick glossy foliage, fine textured and of deep green color. More familiar among evergreen ground covers is the Japanese Spurge, **Pachysandra terminalis,* stoloniferous perennial of uniform height (to 8 in.), bright green in color and of satiny lustre. It tolerates shade remarkably well providing it has good soil in which to grow. Commonplace though it is, **Vinca minor,* more familiarly known as Myrtle or Periwinkle, remains one of the best evergreen ground covers. There is a satisfying quality about its dark foliage and modest flowers of periwinkle blue and the way it adapts itself to almost any planting situation. It will thrive in the driest of soils and tolerates either sun or shade. Several varieties also deserve mention, white flowered **"alba",* the White Periwinkle; **"atropurpurea",* the Purple Periwinkle, whose blossoms are of reddish purple cast; ***"Barts Bigleaf Periwinkle,** with superior foliage; and the more clumpy ***Bowles Periwinkle,** with broader leaves and flowers of larger size and more intense blue coloring.

While perhaps most striking in early summer when its tall spikes of large pendent blossoms rise like giant creamy candles, the Yucca or Adams Needle, **Yucca filamentosa,* makes its most important contribution to the landscape in the form of thick sword-like leaves, which though stiff in appearance remain green throughout the year. A perfect planting companion for the needle leaved conifers or for accent use in the border. It will do well in either sun or partial shade as long as the site is well drained.

Supplementing the broad-leaved evergreens is another related and none the less valuable group, the semi-evergreen plants,whose foliage for reasons climatic or otherwise does not remain evergreen throughout the year in this locality. Of these we have had excellent success with the waxy fruited Bayberry, **Myrica pennsylvanica,* whose thick foliage turns brownish by early winter, and with two ornamental persistent leaved Honeysuckles, the bushy Fragrant or Winter Honeysuckle, **Lonicera fragrantissima,* with foliage clinging till the first of the year, and the climbing Hall's variety, **Lonicera japonica Halliana,* Japanese vine noted for its highly scented white flowers and dark almost evergreen foliage. The brilliantly fruited Laland Firethorn, *Pyracantha coccinea Lalandi,* evergreen wall shrub in the south, but deciduous north, has not proved as reliable, nor has the bold leaved Leatherleaf Viburnum, *Viburnum rhytidophyllum.*

E. L. Kammerer

*Most adaptable for the Chicago area.

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